CHAPTER 10 KEY POINTS

1. Projects must be reviewed and refined during the processes of environmental reviews.
2. The design process works to finalize a project package so it can be used to obtain a construction bid.
3. Through collaboration and coordination with related government agencies and local area MPOs, correct projects are constructed correctly and on time.

Chapter 10
Implementation

10.1 Introduction

Transportation projects, as required by federal regulation, are developed through a continuous, comprehensive, and coordinated process. This process may take several years, even for high-priority projects where the community need has been identified. Lower priority transportation projects can span decades before completing the full process.

The first phases of this process fall within the responsibility of UDOT Systems Planning and Programming. *UDOT's Long Range Transportation Plan 2007–2030* is the result of those efforts. The remaining phases in the process are the implementation phases, broken down into three core areas:

- Environmental Review
- Project Development (Design)
- Construction

10.2 Environmental Review

After projects are published in the STIP, the draft project concepts developed during planning are then refined through one of several possible levels of environmental review, as required by state policies or the National Environmental Policy Act (NEPA). The type of environmental review depends on the complexity of the project. Often on large and complex projects, two separate project phases, such as the environmental study phase and the construction phase, will be listed in the STIP for the project. The environmental phase is then completed prior to bringing the construction phase out of concept development into a funded year.

Before project concepts can proceed to the next step, the project is refined through one of several possible levels of environmental review.

The primary examples of environmental review, listed in order of increasing complexity of environmental issues are Categorical Exclusion, Environmental Assessment, and Environmental Impact Statement. The Categorical Exclusion (CE or CatEx) is used for specific categories of projects that are assumed to have little or no environmental impact due to the type, location, or scope of the projects. For projects outside these categories that are still not expected to have significant environmental impacts, or where those impacts are unknown or not clearly defined, an Environmental Assessment (EA) is initiated. For federally funded projects the Environmental Assessment will either result in filing a Finding of No Significant Impact (FONSI) or it will transition to a full Environmental Impact Statement if significant impacts are identified. An Environmental Impact Statement (EIS) is required all federally funded projects that would significantly impact the environment. At the completion of the EIS process, the Federal Highway Administration files a Record of Decision (ROD). The evaluation for state-funded projects is very similar to the federal process, but filing a FONSI or ROD is not needed.

During the environmental review phase, the final project concept, purpose and need, cost, and environmental impacts are defined and any required environmental mitigation is determined. More extensive traffic analysis, alternatives analysis, public involvement, and environmental impacts are also all completed and documented during the environmental review process. An EA may take a year to two years to complete. Most EIS documents require between three and five years to complete and require filing a Notice of Intent, completing a Draft EIS, public review of the draft, completing a Final EIS addressing public comment, and filing the ROD.

Mitigation commitments and agreements are made as a part of the review process. All projects, including those under CE, incorporate mitigation measures for project impacts to the natural and built environments. Examples of these measures may include restoration of community circulation and pedestrian patterns, traffic control, relocations, or other housing considerations, noise abatement, wetland restoration, historic preservation, and landscaping provisions.

10.3 Project Development

Once the scope of a project has been refined, it is moved from the concept development area of the STIP into a funded year. The project development phase includes a wide spectrum of activities, such as final pavement and bridge design, geotechnical analysis, hydraulic design, traffic striping design, traffic control plans, landscaping design, utility plans, right-of-way coordination, land acquisition, and environmental or local government permitting.

The project scope is finalized to include any subsequent design changes. Mitigation requirements are also included in the work plan, along with any other considerations that may arise in the development of the project.

The culmination of the design process is the development of a final project package that can be used to advertise the project for a construction bid.

10.4 Construction

After the project is advertised and a bid is accepted, a contract is signed with the contractor and a UDOT resident engineer and construction team are assigned to provide project oversight.

The UDOT team provides a number of contract management functions, including contractor oversight, verification of chargeable quantities, quality control inspection activities, project documentation, and processing of payment for work completed. It is also the role of the construction engineer to approve change orders for unexpected costs not foreseen in design. Construction activities usually run through one to two construction seasons.

10.5 Partnering and Collaboration

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UDOT may contract with private consultants and contractors in the planning, environmental, project development, and construction phases to assist in the assessment of system needs, to determine environmental impacts and mitigation, to perform public outreach, to provide design services, and to construct priority transportation projects.

It is through this collaborative effort along with continued coordination with other related government agencies and local area MPOs that the correct projects are constructed at the correct time and in the correct way.